

# SPECIALISATIONS IN THE FIELD OF COMPUTER ENGINEERING



1,5 YEARS (3 SEMESTERS) OF MASTER'S DEGREE PROGRAMME

## SPECIALITIES:

- Applied data science
- Design and applications of wireless networks for internet of things
- Design and applications of mobile applications
- Cybersecurity and reliability of information and industrial systems



STUDIES ARE CONDUCTED  
IN  OR IN 

## SPECIALISATION: APPLIED DATA SCIENCE

Vistula University from Warsaw, Poland, and Magnimind Academy from Silicon Valley both offers a dual post-graduate programme and certificate programme. This joint package is designed to meet the industry-specific needs of companies and impacts on an excellent skill set to the technical teams in the domain of data science. You can empower and prepare yourself for the next generation jobs with the power of data science.

There is a shortage of skilled data scientists to meet business needs, today, and the gap is set to widen in the future. With our customised training, you can fill this gap by getting yourself trained by scientists and engineers from Silicon Valley. The programme will provide you with the most essential skills and tools that are needed in the top notch companies in the world. The specialisation is conducted fully on-line and in English.

Our program offers Data Analytics, Python, Data Visualisation, Applied Machine Learning and Deep Learning courses, as well as seminars and interview practices, which will equip you with the most recent technologies that will prepare you for the job market.



### LIST OF COURSES:

- Python for Artificial Intelligence,
- Statistics & Mathematics for Artificial Intelligence,
- Data Analytics & Visualization with Python,
- Applied Machine Learning.



### CAREER AFTER STUDIES:

Industry is currently experiencing an acute shortage of data analysis and application specialists, and forecasts agree that the gap between industry requirements and the availability of qualified graduates will increase. Students of our programme will contribute to closing this gap, by acquiring specialist education, in both theoretical knowledge and practical experience, from world-class scientists, engineers, and mentors. In addition to courses in the fields of Data Analytics, Python Problem Solving, Data Visualisation, Artificial Intelligence Methods, and Deep Machine Learning, the programme offers you seminars and practical exercises, designed to complement your theoretical and technical knowledge with critical aspects of practical business competence. In this way, you will acquire a unique set of skills expected and required by the world's leading companies.

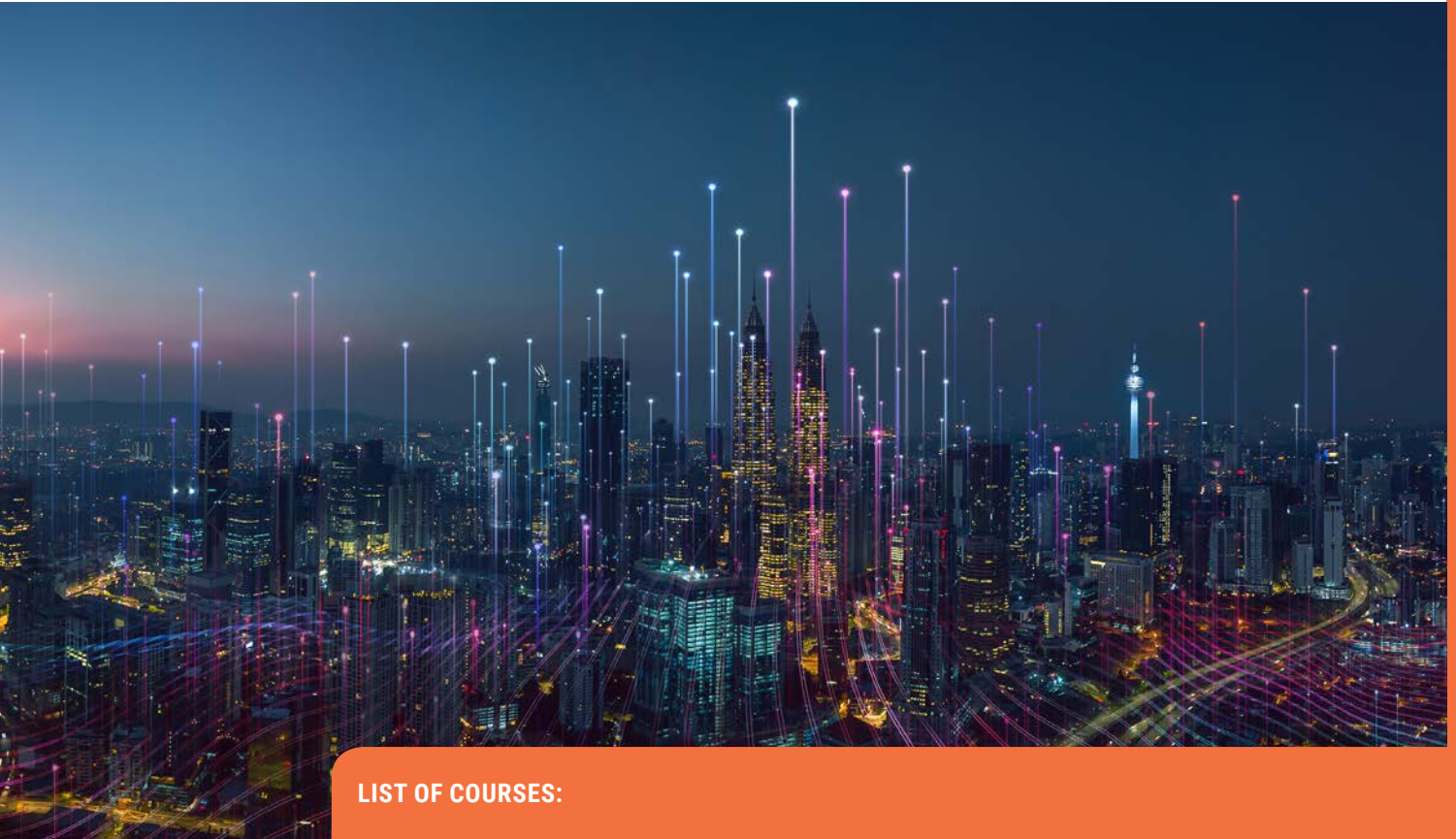
### PROFESSIONAL PERSPECTIVES:

- data analyst,
- data architect.

## SPECIALISATION: DESIGN AND APPLICATIONS OF WIRELESS NETWORKS FOR INTERNET OF THINGS

This sub-major will prepare you to plan and predict the development of wireless networks, and to maintain and develop this infrastructure in organisations. You will master developing ICT and wireless solutions for companies providing telecommunication services. You will learn best practices in communicating with providers and contractors, regarding building and developing wireless networks, as well as supervising and verifying customer systems.

You will become adept at designing protocols, along with managing energy and other resources. All this under the assumption of systemic fallibility and low reliability of individual devices. You will be able to include co-operation algorithms in distributed systems, as well as security and data exchange reliability systems in hostile environments.



### LIST OF COURSES:

- Introduction to microprocessor systems,
- Software design for microprocessor systems,
- Specifications and simulation of communication protocols,
- Applications of sensor networks.



### CAREER AFTER STUDIES:



- artificial intelligence engineer,
- network specialist,
- sensor specialist,
- specialist in wireless networks.



## SPECIALISATION: DESIGN AND APPLICATIONS OF MOBILE SYSTEMS

This sub-major will enable you to gain the skills used in programming, and mobile applications design for the most popular mobile operating systems: Android, Windows Phone and iOS. This means that you will become an expert on the architecture and API of basic mobile platforms.



### LIST OF COURSES:

- Mobile device localisation techniques,
- Principles of system and database construction for mobile platforms,
- Website design technologies for mobile devices,
- Adaptive UI technologies,
- Technologies for integrating applications with the computing cloud,
- Principles of software design frameworks for mobile devices,
- Applications of mobile systems.



### CAREER AFTER STUDIES:



- software specialist,
- quality controller and test specialist,
- mobile applications developer.

## SPECIALISATION: CYBERSECURITY AND RELIABILITY OF INFORMATION AND INDUSTRIAL SYSTEMS

This sub-major will prepare you to work in the field of reliability management, as well as cybersecurity of IT systems and industrial control systems. You will gain knowledge in the area of risk analysis, and get acquainted with the theoretical foundations and computer programmes used in reliability analysis. You will acquire the practical skill of working with specialised software for reliability calculation and you will be able to interpret the results of calculations. You will learn how to design and test IT systems, and industrial control systems, in terms of cybersecurity and the reliability. After graduation, you will be able to manage cybersecurity and the reliability of IT and industrial systems.

Modern companies are waiting for these unique skills!



### LIST OF COURSES:

- Introduction to cybersecurity and the reliability,
- Methods of risk analysis and designing of information and industrial systems,
- Managing cybersecurity and the reliability of information and industrial systems,
- Testing cybersecurity and the reliability of information and industrial systems.



### CAREER AFTER STUDIES:



- Network and Internet specialist,
- White Hat Hacker,
- Cybersecurity specialist.



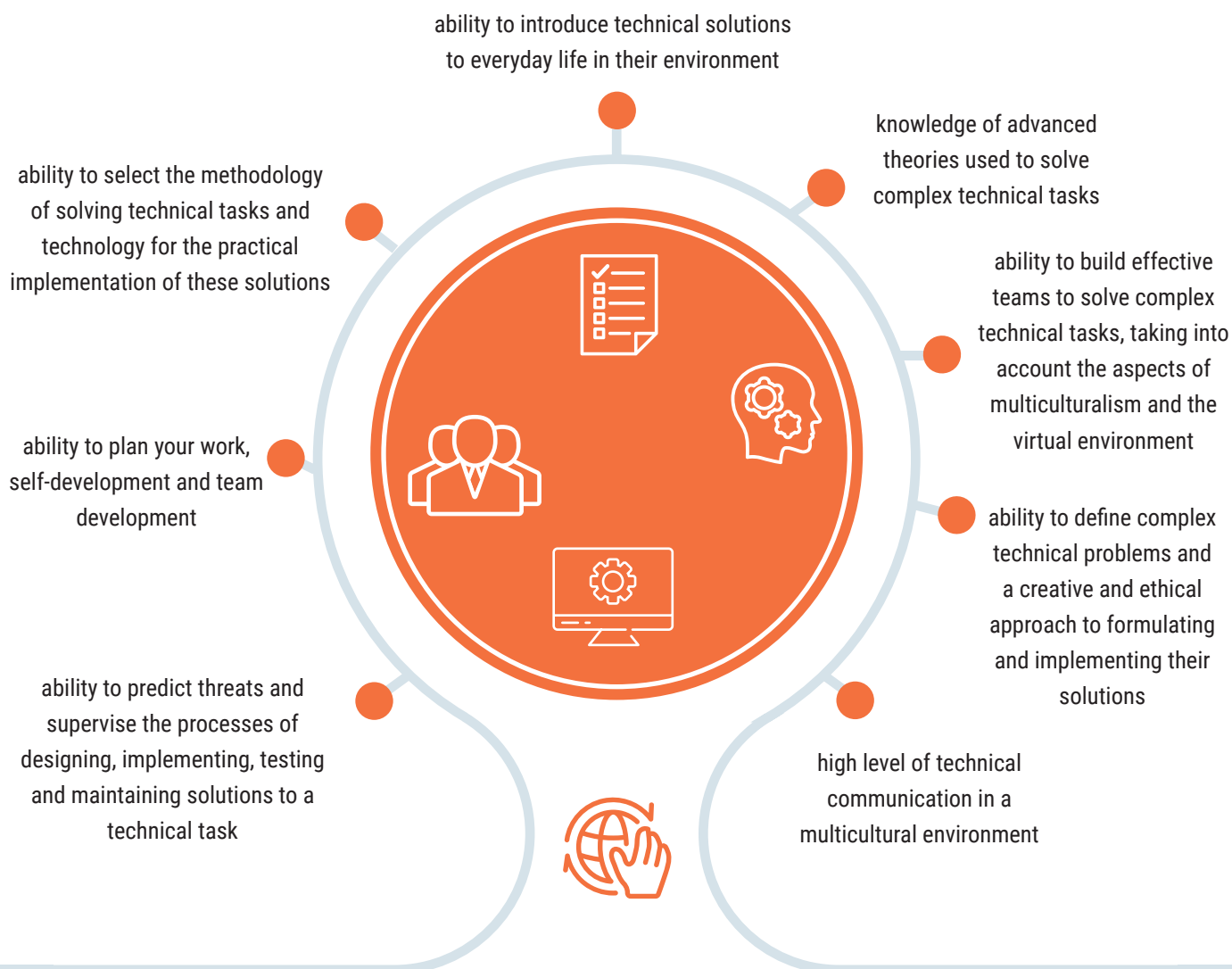
## BUSINESS PARTNERSHIPS:



- Oracle
- Microsoft
- Assecco
- CISCO
- ICCSS
- IFS
- No Gravity Games
- Olsonet
- Magnimind.



## ACQUIRED COMPETENCES AND SKILLS IN COMPUTER ENGINEERING



### INTERNATIONAL OFFICE



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# LET'S MEET IN PERSON OR ON-LINE

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